

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number  
**WO 2005/064678 A1**

(51) International Patent Classification<sup>7</sup>: **H01L 23/544**,  
G03F 7/20

(21) International Application Number:  
PCT/IB2004/052721

(22) International Filing Date: 9 December 2004 (09.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03104953.9 23 December 2003 (23.12.2003) EP

(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];  
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SCHEUCHER, Heimo** [AT/AT]; Triester Strasse 64, A-1101 Vienna (AT).

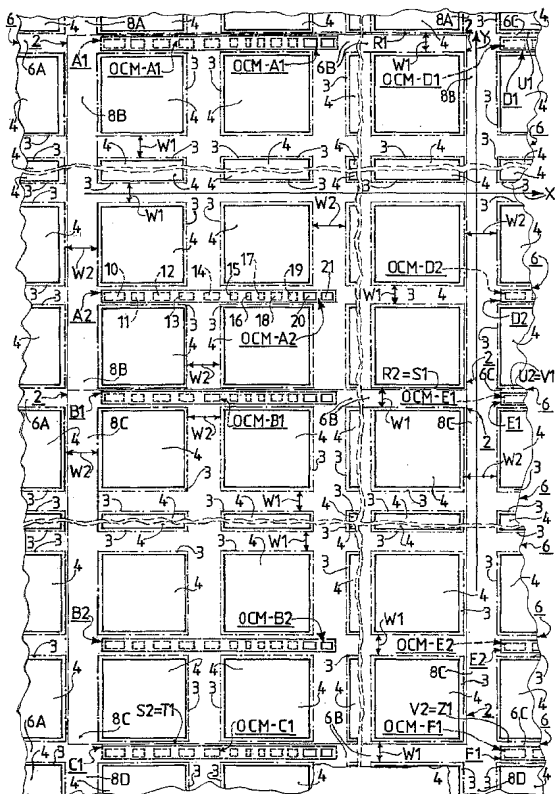
(74) Agents: **RÖGGLA, Harald** et al.; Philips Intellectual Property & Standards, Triester Strasse 64, A-1101 Vienna (AT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: WAFER WITH OPTICAL CONTROL MODULES IN DICING PATHS



(57) Abstract: In a wafer (1) with a number of exposure fields (2), each of which exposure fields (2) comprises a number of lattice fields (3) with an IC (4) located therein, two groups (5, 7) of dicing paths (6, 8) are provided and two control module fields (A1, A2, B1, B2, C1, D1, D2, E1, E2, F1) are assigned to each exposure field (2), each of which control module fields extends parallel to a first direction (X) and contains at least one optical control module (OCM-A1, OCM-A2, OCM-B1, OCM-B2, OCM-C1, OCM-D1, OCM-D2, OCM-E1, OCM-E2, OCM-F1), wherein a first control module field (OCM-A1, OCM-B1, OCM-C1, OCM-D1, OCM-E1, OCM-F1) of each exposure field (2) is located between a first edge (R1, S1, T1, U1, V1, Z1) and a row of lattice fields (3) of the exposure field (2) in question and a second control module field (OCM-A2, OCM-B2, OCM-D2, OCM-E2) is located between two rows of lattice fields (3) of the exposure field (2) in question, which are arranged adjacent to a second edge (R2, S1, U2, V2), and wherein both the first control module fields (OCM-A1, OCM-B1, OCM-C1, OCM-D1, OCM-E1, OCM-F1) and the second control module fields (OCM-A2, OCM-B2, OCM-D2, OCM-E2) each lie in a first dicing path (6).



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

— *with international search report*